

8GA40-040

Technical data



8GA40-040hh003klmm

8GA40-040hh004klmm

8GA40-040hh005klmm

8GA40-040hh008klmm

8GA40-040hh010klmm

8GA40-040hh009klmm

8GA40-040hh012klmm

8GA40-040hh015klmm

8GA40-040hh016klmm

8GA40-040hh020klmm

8GA40-040hh025klmm

8GA40-040hh032klmm

8GA40-040hh040klmm

8GA40-040hh064klmm

8GA40-040hh100klmm

Gearboxes

Number of stages	1					2									
Ratio i	3	4	5	8	10	9	12	15	16	20	25	32	40	64	100
Nominal output torque T _{2N} [Nm] ¹⁾	4.5	6	7.5	6	5	16.5	20	18	20		18	20	18	7.5	5
Max. output torque T _{2max} [Nm] ¹⁾	7	10	12	10	8	26	32	29	32		29	32	29	12	8
Emergency stop torque T _{2estop} [Nm] ²⁾	9	12	15	12	10	33	40	36	40		36	40	36	15	10
No load running torque at 20°C and 3,000 [min ⁻¹] [Nm]	0.1														
Max. average input speed at 50% T _{2N} and S1 n _{1N50%} [min ⁻¹]	5000														
Max. average input speed at 100% T _{2N} and S1 n _{1N100%} [min ⁻¹]	5000					3350	5000								
Max. input speed n _{1max} [min ⁻¹]	18000														
Max. backlash j _{lt} [arcmin]	<21					<25									
Reduced backlash j _{lt} [arcmin]	-														
Torsional rigidity C _{t21} [Nm/arcmin]	0.7					1.1									
Tilting rigidity C _{2K} [Nm/arcmin]	-														
Max. tilting moment M _{2KMax} [Nm]	-														
Max. radial force for 30,000 h Fr _{max} [N] ³⁾	160														
Max. radial force for 20,000 h Fr _{max} [N] ³⁾	200														
Max. axial force for 30,000 h Fa _{max} [N] ³⁾	160														
Max. axial force for 20,000 h Fa _{max} [N] ³⁾	200														
Running noise L _{PA} [dB(A)] ⁴⁾	68														
Efficiency at full load η [%]	94					92									
Min. operating temperature B _{Tempmin} [°C] ⁵⁾	-25														
Max. operating temperature B _{Tempmax} [°C] ⁵⁾	90														
Mounting orientation	Any														
Protection class	IP 54														
Weight m [Kg]	0.51					0.61									
Moment of inertia J ₁ [Kgcm ²]	0.04		0.03			0.04					0.03				

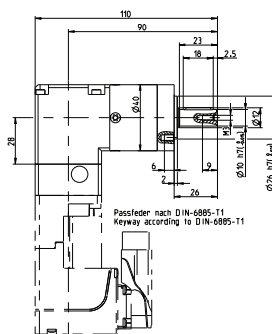
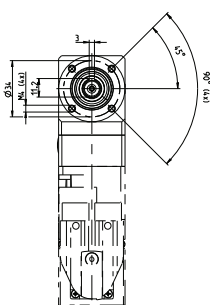
¹⁾ The entries refer to an output shaft speed of $n_2=100\text{min}^{-1}$ and application factor $K_A=1$ as well as S1 operating mode for electrical machines and $T=30^\circ\text{C}$; depending on the respective motor shaft diameter

²⁾ Approved for 1000x

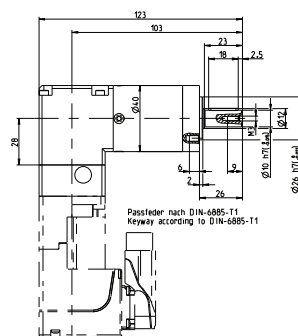
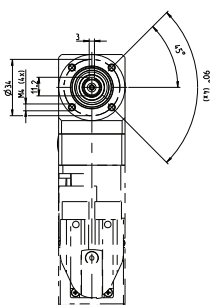
³⁾ With reference to the middle of the output shaft; the entries refer to an output shaft speed of $n_2=100\text{min}^{-1}$ and application factor $K_A=1$ as well as S1 operating mode for electrical machines and $T=30^\circ\text{C}$

⁴⁾ Noise level at a distance of 1 m; measured at a drive speed of $n_1=3000\text{min}^{-1}$ without a load; $i=5$

⁵⁾ With reference to the middle of the housing surface

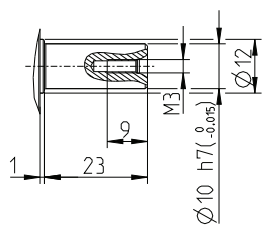


2 stage gearboxes



Alternative output shaft options

Smooth shaft



8GA40-040

Technical data



8GA40-040hh060klmm

8GA40-040hh080klmm

8GA40-040hh120klmm

8GA40-040hh160klmm

8GA40-040hh200klmm

8GA40-040hh256klmm

8GA40-040hh320klmm

8GA40-040hh512klmm

Gearboxes

Number of stages	3							
Ratio i	60	80	120	160	200	256	320	512
Nominal output torque T_{2N} [Nm] ¹⁾	20		18	20	18	20	18	7.5
Max. output torque T_{2max} [Nm] ¹⁾	32		29	32	29	32	29	12
Emergency stop torque T_{2estop} [Nm] ²⁾	40		36	40	36	40	36	15
No load running torque at 20°C and 3,000 [min ⁻¹] [Nm]	0.1							
Max. average input speed at 50% T_{2N} and S1 $n_{1N50\%}$ [min ⁻¹]	5000							
Max. average input speed at 100% T_{2N} and S1 $n_{1N100\%}$ [min ⁻¹]	5000							
Max. input speed n_{1max} [min ⁻¹]	18000							
Max. backlash j_t [arcmin]	<28							
Reduced backlash j_r [arcmin]	-							
Torsional rigidity C_{t21} [Nm/arcmin]	1							
Tilting rigidity C_{2K} [Nm/arcmin]	-							
Max. tilting moment M_{2KMax} [Nm]	-							
Max. radial force for 30,000 h F_{rmax} [N] ³⁾	160							
Max. radial force for 20,000 h F_{rmax} [N] ³⁾	200							
Max. axial force for 30,000 h F_{amax} [N] ³⁾	160							
Max. axial force for 20,000 h F_{amax} [N] ³⁾	200							
Running noise L_{PA} [dB(A)] ⁴⁾	68							
Efficiency at full load η [%]	88							
Min. operating temperature $B_{Tempmin}$ [°C] ⁵⁾	-25							
Max. operating temperature $B_{Tempmax}$ [°C] ⁵⁾	90							
Mounting orientation	Any							
Protection class	IP 54							
Weight m [Kg]	0.71							
Moment of inertia J_1 [Kgcmm ²]	0.04	0.03	0.04				0.03	

¹⁾ The entries refer to an output shaft speed of $n_2=100\text{min}^{-1}$ and application factor $K_A=1$ as well as S1 operating mode for electrical machines and $T=30^\circ\text{C}$; depending on the respective motor shaft diameter

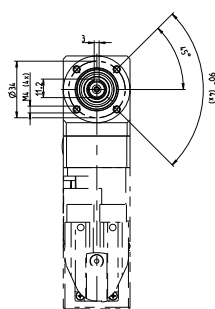
²⁾ Approved for 1000x

³⁾ With reference to the middle of the output shaft; the entries refer to an output shaft speed of $n_2=100\text{min}^{-1}$ and application factor $K_A=1$ as well as S1 operating mode for electrical machines and $T=30^\circ\text{C}$

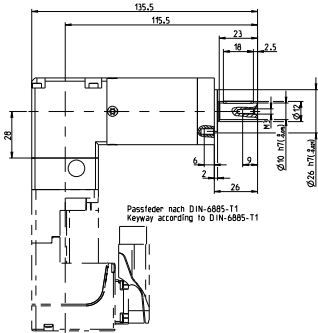
⁴⁾ Noise level at a distance of 1 m; measured at a drive speed of $n_1=3000\text{min}^{-1}$ without a load; $i=5$

⁵⁾ With reference to the middle of the housing surface

3 stage gearboxes



Alternative output shaft options



Smooth shaft

